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Gender-dependent language anxiety in Polish communication apprehensives

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Abstract

This paper analyzes the relationship between communication apprehension and language anxiety from the perspective of gender. As virtually no empirical studies have addressed the explicit influence of gender on language anxiety in communication apprehensives, this paper proposes that females are generally more sensitive to anxiety, as reflected in various spheres of communication. For this reason, language anxiety levels in communication apprehensive females should be higher, unlike those of communication apprehensive males. Comparisons between them were made using a student *t* test, two-way ANOVA, and post-hoc Tukey test. The results revealed that Polish communication apprehensive secondary grammar school males and females do not differ in their levels of language anxiety, although nonapprehensive males experience significantly lower language anxiety than their female peers. It is argued that the finding can be attributed to developmental patterns, gender socialization processes, classroom practices, and the uniqueness of the FL learning process, which is a stereotypically female domain.

Keywords: communication apprehension, apprehensives, language anxiety, gender

Although there are several studies that have explored possible links between communication apprehension and language anxiety, the clear-cut influence of gender on their interplay has not yet been established. Accordingly, the major aim of this paper is to shed more light on this complex relationship. In the first part of the article the theoretical underpinnings of the concepts of

communication apprehension and language anxiety are described, together with their connection to gender. Next, the empirical research carried out for the purpose of this article is outlined, followed by a discussion of its results. Finally, the paper considers the limitations and implications of the research.

Communication Apprehension and Gender

The ability to communicate effectively is presently viewed as an indispensable skill in modern western society, enabling its members to overcome differences and create an environment where they can come together to work, study, and play (Scott, 2008). It is therefore expected that a successful and responsible individual should display efficient communicative abilities, which are necessary for managing the ongoing, dynamic, and change-oriented communication process that also requires understanding and a readiness to communicate in a proficient manner (Richmond & McCroskey, 1998). Unfortunately, this is not the case for many who suffer from a particular deficit, communication apprehension, which hinders them in building satisfying human relationships and thus permeates every aspect of their lives. The burden of communication apprehension may appear to greatly limit an individual's chances for creating positive relationships with others, because in order to cope effectively with everyday stressors (e.g., foreign language learning) one must engage in dialogue with other people. The exchange of information may instigate positive coping, provide emotional support, and help one to solve problems. Individuals deprived of the social skills of information sharing, as in the case of communication apprehensives, are likely victims of elevated stress levels or other serious consequences of daily hazards.

Deficits connected with *communication apprehension* (CA) have been explored for almost eighty years, with initial studies, such as those of Lomas (1937) or Gilkinson (1942), mostly focusing on CA in the context of public speaking. Notwithstanding, the contemporary approach to CA takes into consideration a broadened perspective, viewing it as indispensable to understanding numerous communication environments and experiences (e.g., Blume, Dreher, & Baldwin, 2010; Degner, 2010; Roby, 2009).

Similarly, the definitions of CA have evolved from "a broadly based anxiety related to oral communication", which was given by McCroskey (as cited in McCroskey & Beatty, 1984, p. 79), into "a broad-based fear or anxiety associated with either real or anticipated communication with another person or persons," by the same author (McCroskey, 1976, p. 3). Therefore CA, originally restricted to speaking, especially in public, has now been expanded to all communication modes and grouping patterns (dyadic encounters or small groups). Moreover, the

definition provides for possible causes of CA, such as situational settings (e.g., public speaking) and the individual's personality traits (quietness, reticence and shyness) (Osman, Nayan, Mansor, Maesin, & Shafie, 2010), viewed from the perspective of unspecified (anxiety) and specified (fear) danger.

Among the most significant causes of CA three basic categories are distinguished: excessive activation, inappropriate processing, and inadequate communication skills (Richmond & McCroskey, 1998). When *excessive activation* takes place, normal physiological arousal usually connected with the necessity to perform exceeds the individual's control abilities, causing swallowing difficulty, dry mouth, excessive trembling and sweating, as well as temporary memory loss. From this point of view, one's cognitive processes are secondary due to this overphysiological reaction. However, in the second type of explanation for the genesis of CA, *inappropriate cognitive processing* may play a key role. In this case even normal physiological arousal, though negatively assessed by an individual, leads to inappropriate processing of available information. Here, one's cognitive predisposition to interpret bodily reactions in a negative manner leads to the triggering of higher CA levels, obviously to one's disadvantage (Hawkins, 1992). The third explanation for CA focuses on the role of *inadequate communication skills*. When an individual is unsure of appropriate communication behavior in a given setting, the uncertainty gives way to the experience of anxiety. It seems important to underline the fact that deficient skills might be inadequate in triggering CA. A more potent reason for its elevated levels should instead be attributed to low self-perception of one's communicative skills, even when they are objectively adequate. This is termed the "inappropriate cognitive processing explanation" (Richmond & McCroskey, 1998, p. 98). As a result, it is often difficult to distinguish an apprehensive communicator incapable of getting his or her message across from an incompetent communicator, who fails due to a lack of skills (Fortham & Gabbin, 1996). Finally, it is worth adding that in most cases CA is likely to evolve in early childhood, mostly due to negative reinforcement of the child's communicative behaviors (McCroskey, 1977), personality characteristics, or hereditary temperamental states (Pryor, Butler, & Boehringer, 2005). This synergy of heredity and environment may become an antecedent of adult CA (McCroskey, 1984).

Communication apprehension, with its serious debilitating effect on communication, induces an array of negative consequences that can be identified in almost every aspect of one's social and personal life. These consequences can be divided into two basic categories: internal and external (McCroskey & Beatty, 1986). *Internal* effects of CA are connected with a subjective affective response to communication, i.e., a repeated feeling of discomfort within an individual. Conversely, the *external* impact of CA is connected with behavioral manifestations of this phenomenon in specific types of

situations (trait-like CA), taking the forms of communication avoidance, withdrawal, and disruption. In the case of avoidance, high CA individuals prefer not to speak with others and avoid situations that induce communication. Such people often take occupations with lower communication requirements, or, when they cannot avoid communication, select inconspicuous seats in the classroom or within small groups in order to make communication less likely. The basic signs of communication withdrawal are talking less than others, falling absolutely silent, or talking only as much as is absolutely needed. The third sign of CA, communication disruption, is revealed in unnatural nonverbal behavior, vocalized pauses, and faltering verbal presentation (McCroskey, 1981).

Generally speaking, there are three universal tenets underlying CA research (Charlesworth, 2006). First of all, individuals with high levels of CA will avoid and/or withdraw from oral interaction with others. The reason is that a highly apprehensive person is not able to identify any positive experiences in communicating; hence any interactional attempts are accompanied by feelings of tension or embarrassment. Regarding cognitive processes, a high level of CA is related to excessive attention to one's self, resulting in poorer performance in public speaking situations (Daly, Vangelisti, & Lawrence, 1989). Second, as a result of avoidance/withdrawal, communication apprehensives are often seen in a poor light by themselves and others. The greater self-focus of an apprehensive individual leads to the missing of external cues and opportunities to adapt to audience reactions. It is also accompanied by more negative thinking, a greater concern with evaluation, performance, and other self-related issues. Third, this poor image has economic, political, and academic consequences, meaning that if these individuals cannot communicate effectively, they will not develop to their full potential. In effect, "high CA can impede an individual's communication ability and social opportunity" (Francis & Miller, 2008, p. 39), while in the educational context it leads to lower overall school achievement as measured by standardized tests, lower final grades in all courses, and negative attitudes on the part of highly apprehensive students (McCroskey, 1977). It has also been demonstrated that CA has an exceedingly negative impact on learning in most instructional environments because the classroom setting in its own right may be a powerful activator of many apprehensive behaviors (Thurlow & Marwick, 2005), alongside with social influences, such as tedium, conflicts with the teacher, or inattention.

As far as the relationship between CA and *gender* is concerned, any analysis should start with defining gender as "socially created and learned distinctions that specify the ideal physical, behavioral, and mental and emotional traits characteristic of males and females" (Ferrante, 2010, p. 268). As gender denotes special attributes and characteristics proper for males and

females, it can be inferred that gender is learned through the process of socialization. Empirical research demonstrates quite conflicting results concerning the interplay of gender and CA. First of all, there are no significant differences between females and males with regard to general levels of CA (Borzi & Mills, 2001; McCroskey, Simpson, & Richmond, 1992), although females may be slightly more apprehensive about public speaking than males (Bello, 1995). The authors speculate that this result may be a consequence of gender differences in handling public speaking apprehension. Highly apprehensive females are hypothesized to cope better, or at least disguise their anxiety, in contrast to highly apprehensive males. However, there are other studies that prove the opposite, in which no interactive effect was found between gender and public speaking apprehension (e.g., McDowell, 2000).

On the other hand, in a study by Frantz, Marlow, and Wathen (2005) a statistically significant difference was found between males and females with respect to their overall CA score. Likewise, Aly and Islam (2005) confirmed the effect of gender on CA, finding that women experience a higher level of CA than men. The reason may be that the stereotypical feminine role usually promotes female inferiority, meaning that a female is likely to suffer from elevated levels of apprehension when she needs to communicate her ideas or feelings to a group, especially over a longer period of time when her speech may appear less clever, serious or convincing. However, in informal situations her greater assets are empathy and a willingness to demonstrate self-disclosure and emotion, which serve as an aid in combating the negative effects of her apprehension (Strohkirch & Parks, 1986). Unfortunately, due to the inconsistency of research findings, it is still extremely difficult to speculate about the explanatory power of gender in understanding CA.

Language Anxiety and Gender

Aside from the apprehension present in L1 communication as described above (CA), the context of foreign (or second) language learning has also generated a lot of influential research on apprehension specific to this environment – termed *language anxiety* (LA).

Foreign language (FL) acquisition is a highly dangerous process, because it threatens the learner's view of himself (self-concept) as well as his view of the world (Guiora, 1983). Studying an FL, especially in the context of formal education, requires the development of skills and abilities necessary for performing in a new code quite quickly. Not surprisingly, these performance demands constitute a basic threat to the learner's ego, as loss of face becomes a likely occurrence in situations where this new code has not yet been mastered. Conse-

quently, FL learning has been characterized as "fundamentally different . . . compared to learning another skill or gaining other knowledge" in "that language and self are so closely bound, if not identical, that an attack on one is an attack on the other" (Cohen & North, 1989, p. 65). Sadly, when one is in essence forced to speak (perform) in order to learn a second language (Skehan, 1989), one's psychological readiness required for communication in the second language may be highly strained, scarcely leaving space for voluntary choice.

These perils of forced communicative needs produce *language anxiety*, a variable that is an inherent part of the FL learning experience. Language anxiety is usually defined as "a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process" (Horwitz, Horwitz, & Cope, 1986, p. 128). Gardner and MacIntyre (1993) meanwhile propose viewing it as "the apprehension experienced when a situation requires the use of a second language with which the individual is not fully proficient." Such clarifications of the term illustrate the role of the formal language learning context in creating self-centered thoughts, feelings of incompetence and fear of failure (e.g., MacIntyre & Gardner, 1994).

According to the theoretical model of LA (e.g., Gardner & MacIntyre, 1993), its foundations are constituted by the universal, psychological characteristics of the FL learner, existing independently from language context, such as: fear of negative evaluation, test anxiety, and CA. *Test anxiety*, defined as "a situation-specific form of trait anxiety (Zohar, 1998, p. 330), is usually connected with emotional reactions accompanying situations where one's performance is being measured or assessed (McDonald, 2001). Its major role in generating elevated levels of LA can be attributed to learners' inappropriate perception of FL production. Instead of viewing it as "an opportunity for communication" (Horwitz et al., 1986, p. 128), they react to it with test anxiety-specific reactions: worry, emotionality, and task-generated interference (Register, May, Beckham, & Gustafson, 1991). In consequence, apprehension specific to the FL learning process is produced.

Fear of negative evaluation, on the other hand, pertains to "the sense of dread associated with being evaluated unfavorably while anticipating or participating in a social situation" (Weeks, Jakatdar, & Heimberg, 2010). It is proposed that students who fear negative evaluation tend to suffer from elevated levels of LA, especially with respect to their self-perception of speaking abilities (Kitano, 2001). Students' concern over FL competence, especially performance, induces avoidance of the possibility of negative evaluations, leading to minimal interactions or passivity and withdrawal. Their fear of losing face in

front of classmates and/or the teacher deprives them of the chance to improve, and inevitably leads to augmented LA levels.

The effects of LA can be identified in all spheres of the learner's life: cognitive, personal, social and academic (MacIntyre, 1999). First of all, *cognitive* consequences of LA concern interference with students' cognitive performance in language processing, as in the case of internal CA effects. Anxiety is speculated to tighten information processing, leading to disruption in concentration and performance due to impaired cognitive control (Pekrun, 1992). It also causes elevated distractedness and increased responsiveness to potential threats (Bishop, Duncan, Brett, & Lawrence, 2004). Anxious individuals' threat prioritization leads to task-irrelevant thinking and self-concern. Aside from that, general cognitive processes involved in language acquisition also undergo serious anxiety-threatening disturbances. Hence, at the level of input apprehension affects the student's ability to attend to, concentrate on, and encode FL messages. At the next stage, processing, it hinders cognitive operations involving complex information, memory demands, and the organization of the material presented. Finally, at the output anxiety stage, it weakens the use of productive skills such as speaking or writing in the FL.

Personal effects of LA consist in self-deprecating and worrisome thoughts, or overwhelming fear (Horwitz & Young, 1991; Piechurska-Kuciel, 2008). To a large extent, they are identical with internal effects of CA; i.e., the student's subjective affective responses to communication, such as repeated feelings of discomfort. *Social* effects of LA include the learner's unwillingness to communicate in the FL classroom and in a natural setting (MacIntyre, 2007; MacIntyre & Charos, 1995). Likewise, in CA similar effects can be identified when taking into consideration the external impact of CA (communication avoidance, withdrawal, and disruption). *Academic* consequences of LA, alternatively, refer to the detrimental influence of the phenomenon on FL learning and performance (e.g., Hewitt & Stephenson, 2011), proving it to be a significant predictor of failure in the language classroom (Woodrow, 2006), which is also confirmed by a negative correlation between LA and course grades, as well as proficiency tests and communicative competence (Chen, 2008; Tsiplakides & Keramida, 2009). Here again, clear similarities between LA and the external impact of CA can be identified.

The role of the student's *gender* in LA research has been clearly recognized, though again, with conflicting results. Firstly, previous to or at the beginning of language courses manifestations of LA have not been shown to be gender-dependent (Campbell, 1999; Campbell & Shaw, 1994; Matsuda & Gobel, 2004; Pappamihiel, 2001; Wong, 2009). Yet at the same time, a great deal of research suggests that girls are generally more anxious, irrespective of

their proficiency levels (e.g., Abu-Rabia, 2004; Koul, Roy, Kaewkuekool, & Ploisawaschai, 2009; Mahmood & Iqbal, 2010; Piechurska-Kuciel, 2008). The reasons for such results are attributed to females' greater sensitivity to anxiety (e.g., Simon & Nath, 2004) and their higher levels of school stress (Byrne, 2000; Ginsburg & Silverman, 2000). Females may perceive the language acquisition requirements as nerve-racking, and react to them with higher levels of LA. Another explanation rests in the significant sex-related differences in social behavior, cognitive activity, general verbal ability (Bacon & Finnemann, 1992), and significant differences in the learning abilities between the sexes (Halpern, 2000). It is proposed that any conflicting research results may be attributed to the diverse age levels of the participants and cultural differences.

For the purpose of this paper it is proposed that CA has a strong influence in inducing elevated levels of LA, alongside with the impact of gender. First of all, it can be argued that CA and LA are parallel phenomena, differentiated only by the language context. The relationship between CA and *language anxiety* stems from the use of the four skills (speaking, listening, writing and reading), strengthening the negative effects of CA in FL situations. However, it is worth pointing out that speaking seems to be "the single most important source of language anxiety" (MacIntyre, 1999, p. 33), although problems comprehending oral messages also constitute a significant source of LA (Arnold, 2007). Moreover, the procedures applied while learning the FL in the classroom also require various grouping patterns that enable effective FL use: dyads, small groups or whole class discussions, which is a very important aspect of CA's origins.

That aside, both phenomena share common features, such as fear of making mistakes, intense feelings of self-consciousness, and a desire to be perfect while using language skills. Likewise, personal convictions about not being understood or not being able to understand others evoke strong feelings of communication avoidance. Both CA and LA indicate the necessity to perform, yet LA also requires the need to learn and use the FL (Foss & Reitzel, 1988), which in effect produces elevated levels of LA in all students, not only communication apprehensives.

Obviously, though it may be accepted that "second language situations could create and amplify CA" (Jung & McCroskey, 2004), it is now of more importance to decide if CA determines the magnitude of LA. In spite of their conceptual similarity or even synonymity (MacIntyre, Baker, Clément, & Donovan, 2002; MacIntyre & Charos, 1996), the two phenomena in question should not be treated as identical due to two basic reasons. First of all, CA is one of the foundations of LA; hence any fluctuations in the first lead to differences in the latter. However, a more powerful argument against the equivalence of the constructs can be found in the model of the development of LA. Following

Spielberger (1972), who speculated that anxiety effects are the function of ability level, as proficiency and experience in the FL increase, anxiety starts declining "in a consistent manner" (MacIntyre & Gardner, 1991, p. 111). It follows that the learner's developing proficiency is connected to more competent language use (Mihaljevic Djigunović, 2004), and less pronounced LA (Piechurska-Kuciel, 2008). Plainly, from this point of view, LA cannot be regarded as a trait-like feature, but a learned experience. Conversely, CA, when viewed as a personality trait, stems from the individual's personality profile, which remains stable. Even though situational settings also generate CA, they refer to universal, every-day situations, among which the input of FL learning can be regarded minimal. Moreover, the development of CA (usually originating in childhood) and its reliance on heredity exclude a dynamic decrease like the one observed in the case of LA.

As far as the role of gender in the interdependence of CA and LA is concerned, no empirical studies have thus far addressed the explicit influence of gender on LA in communication apprehensives. This paper proposes that females are generally more sensitive to anxiety, which is reflected in various spheres of life, especially because gender-related symptoms of anxiety remain stable over adolescence (Van Oort, Greaves-Lord, Verhulst, Ormel, & Huizink, 2009). As such, their communication deficits prompted by anxiety should be transferred to the FL learning context, producing higher LA. The main hypothesis is as follows: *Female communication apprehensives declare higher levels of LA than their male peers*.

Method

Participants

The informants in this study were students of the six secondary grammar schools in Opole, located in south-western Poland. There were 621 participants (396 girls and 225 boys) from 23 classes (natural groups). Their average age was 16.5, with a minimum of 15 and a maximum of 18. Less than a half of them lived in the city of Opole (286 students), about one-third (213) in the surrounding villages, while almost 20% resided in neighboring towns (122). They were all first-grade students in their schools, with 3 to 6 hours a week of English instruction. Their level of English proficiency was elementary to intermediate with an average length of the English language experience reaching almost 9 years, with the vast majority (91%) having learned it for 5 to 15 years. The participants also studied French or German as the other compulsory FL (two lessons a week).

For the purpose of corroborating the aforementioned hypothesis, a spe-

cial participant grouping was needed. On the basis of the Personal Report of Communication Apprehension (PRCA) – Long Form (McCroskey, 1978), the sample was divided into three groups: the lower quartile (≤48 pts) included a group of 164 students (96 girls and 68 boys) with low levels of CA (later called LCA), while the upper quartile (≥72 pts) comprised a group of 152 students (112 girls and 40 boys) with high levels of CA (HCA). The remaining group of students (middle quartiles) was excluded from further analysis.

Instruments

The basic instrument used in the study was a questionnaire. It consisted of several parts, the first of which explored demographic variables: age, gender (1 – *male*, 2 – *female*) and place of residence (1 – *village: up to 2,500 inhabitants*, 2 – *town: from 2,500 to 50,000 inhabitants,* 3 – *city: over 50,000 inhabitants*).

The next part included the Personal Report of Communication Apprehension (PRCA) – Long Form (McCroskey, 1978), which is a scale measuring the level of an individual's oral CA. It features such items such as: "While participating in a conversation with a new acquaintance, I feel very nervous" or "My thoughts become confused and jumbled when I am giving a speech." The scale followed a 5-interval Likert-type response format, from 1 (*I strongly disagree*) to 5 (*I strongly agree*). The minimum number of points was 24 and the maximum 120. Its reliability in terms of the Cronbach's alpha was .89.

Finally, the Foreign Language Classroom Anxiety Scale (FLCAS) was included in the questionnaire (Horwitz et al., 1986). Its purpose is to assess the degree to which students feel anxious during FL classes. Sample items on the scale are as follows: "I can feel my heart pounding when I'm going to be called on in language class" and "I keep thinking that the other students are better at languages than I am." All the positive items were key-reversed so that a high score on the scale represented a high anxiety level. The minimum number of points that could be obtained on the scale was 33, while the maximum was 165. The scale's reliability was assessed in terms of Cronbach's alpha coefficient of .94.

Procedure and Analysis

The research design was correlational, measuring the relationship between variables, or, more specifically, differential, which means that it compared two or three groups on a dependent variable (Graziano & Raulin, 1993).

There were two main kinds of variables identified in the study: The dependent variable is represented by LA levels, as well as gender (two levels: male and female), while the independent variable is CA (two levels: LCA and HCA).

The data collection procedure took place in December 2010, when the respondents were in their first grade of secondary school. They were asked to complete the questionnaire without thinking too long about the answers, which took them 10 to 45 min.

The data were computed by means of the statistical program Statistica. Standard descriptive statistics were used to report means and standard deviation for baseline characteristics ($p \leq .05$). A two-way ANOVA with a Tukey HSD posthoc test were used to analyze the data. Thanks to the first procedure (also called two-factor analysis of variance), it was possible to measure the effects of two factors simultaneously (i.e., the effect of gender and CA in the LCA and HCA groups). This procedure is not only able to assess the role of both factors, but also the interaction between the parameters. After obtaining the main effects (of gender and CA) and the interaction effect (gender x CA) through the ANOVA procedure, a post hoc test was performed. The Tukey's HSD (Honestly Significant Difference) test for unequal sample sizes provides specific information on which means obtained in the four groups (LCA females and males, HCA females and males) are significantly different from one another.

Results

Table 1 shows the means and standard deviation of the four groups of students (LCA females, LCA males, HCA females and HCA males). The results of the student's *t* test between LCA and HCA groups are also presented, which demonstrated that there is no significant difference between HCA males and females, while such a difference can be identified between LCA males and females.

Table 1 Means, *SD* and *t* test of LA levels in LCA and HCA males and females ($N = 316$)

	Females ($N = 208$)		Males ($N = 108$)		
					t
	M	*SD*	*M*	*SD*	
LCA	78.51	26.33	65.75	18.34	-.46***
HCA	97.04	22.37	91.87	22.37	-1.25

***$p < .001$

The results of the two-way ANOVA showed a significant difference in main effects, that is between the CA groups: $F(1, 312) = 64.69$, $p < .001$, and between males and females: $F(1, 312) = 10.43$, $p < .01$. However, there was no significant difference for the interaction effect: $F(1, 312) = 1.87$, $p = .17$ (see Figure 1 for a visual representation of the data).

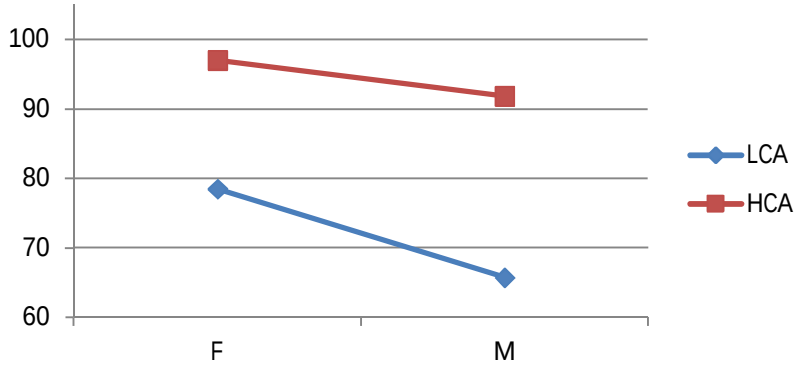

Figure 1 Language anxiety levels in communication apprehensive (HCA) and nonapprehensive (LCA) males (M) and females (F)

The results of the Tukey post-hoc test showed a significant difference in the means of all the four groups, apart from the comparison between HCA males and females, as previously confirmed by the student *t* test.

Discussion

The goal of this study was to corroborate the hypothesis that *female communication apprehensives declare higher levels of LA than their male peers*. However, the results demonstrate that the hypothesis is incorrect, as male and female apprehensives show similar levels of LA.

In order to comprehend this seemingly odd finding, a discussion of the results should start with an analysis of the nonapprehensive group's behavior. Females with low levels of CA experience a significantly higher level of LA, unlike low communication apprehensive males, who seem to enjoy a more relaxed attitude to the FL learning process. It would therefore be quite natural to expect that this result can be explained by female anxiety sensitivity induced by several causes, among them developmental patterns, gender socialization processes, classroom practices, and the specificity of the FL learning process.

As far as developmental patterns and gender processes are concerned, they cannot be analyzed independently from each other due to the fact pinpointed by Ruble (as cited in McHale, Kim, Dotterer, Crouter, & Booth, 2009) that "gender is multidimensional, and its different dimensions are thought to exhibit different developmental patterns that emerge through different processes" (p. 483). The cohort studied was comprised of late adolescents (15 to 18 years of age). This developmental period is characterized by physical and psychological maturation, as well as by changing social roles and environ-

ments. At that time bodily changes are accompanied by intellectual growth and emotional independence, helping the adolescent to gain a sense of self. It can then be expected that females, who mature earlier than males, should manage their FL learning process more efficiently. However, the results prove that in spite of earlier maturation, girls' affective response to the FL learning situation is likely to reduce their developmental advantage.

Consequently, it seems that biological differences between the two genders are a dominant cause of anxiety. Taking into consideration the present emphasis on the integration of biological and socialization approaches, the role of biology in gendered psychological processes and behaviors employed in the interplay of CA and LA also cannot be overlooked when discussing the results. Changes in the brain structures and alternations in reproductive hormones in the oestrous cycle are the basis for an increased tendency toward developing affective disorders in females. From this point of view, it may be claimed that females' fluctuating hormone levels are the most probable causes of their anxiety sensitivity, leading to the augmented LA experience.

However, in their pursuit of identity girls focus on building and maintaining relationships through communication in various settings, the FL classroom being one of them. Surrounded by friends of the same and opposite sex, they should feel sufficiently comfortable to risk performing within this traditionally "feminine" subject area. Unfortunately, general classroom practices may have an opposite effect on female affective reactions identified in the FL learning process. On the one hand, teachers have greater expectations of females, believing that they mature earlier and take a more serious approach to their work. In effect, girls appear to care more about the quality of their work, devote more time to studying regularly, and have a more positive attitude to language learning. Yet, on the other hand, teachers interact with boys more often and ask them more challenging questions, which is attributed to male students' needing more help, or sustaining their interest in the lesson in an attempt to avoid disruption. In effect, girls may feel that their socially (and academically) positive behavior is not adequately rewarded, which causes them to feel unmotivated and deprived of support. Moreover, the uniqueness of learning an FL in the context of formal education, with its focus on performance demands, may increase their negative experiences, the occurrence of LA among them.

Males for whom communication in their mother tongue is a pleasant experience are speculated to be more able to manage their negative emotions when learning an FL. First of all, although they may not be psychologically mature enough to take part in L2 communication with their full potential, the perils of second language acquisition do not pose a threat sufficient for them to experience LA equaling the levels of their female peers. This fact can be

explained by the male ability to successfully cope with everyday stressors, by their more detached attitude to that "girly" subject, as well as by constant attempts of their FL teachers to sustain boys' interest in this academic area. For these reasons, it may be deduced that males do not tend to regard the language learning process a high-stakes enterprise that could ruin their self-esteem or ego. Consequently, their LA levels are considerably lower in contrast to those of female classmates.

Judging from LA levels in nonapprehensives, it should be expected that female communication apprehensives suffer from significantly higher LA than their male peers. As this is not the case in the cohort studied, the discussion of the results should center around the specific effects of CA that either reduce the negative effect of femininity or magnify the positive effect of masculinity.

In the case of the former it should be hypothesized that the three basic categories of the sources of CA (excessive activation, inappropriate processing, and inadequate communication skills) may play a key role in girls' more effective control of negative emotions in the L2 learning process. With their excessive activation already experienced in L1 communication, negative experiences encountered in the FL learning process are obviously augmented. However, communication apprehensive girls, in spite of their communication problems, are able to cope with the demands of the subject more effectively with their serious attitude to schoolwork. Even when they experience over-physiological reactions their study habits allow them to ease their emotionality.

The same can be said about another source of CA, that is, inappropriate cognitive processing. Connected with an exaggerated tendency to assess one's bodily reactions in a negative manner, inappropriate cognitive processing induces higher CA. It may be ascertained that females' conscientiousness is a vital asset, allowing them to tame their negative emotions.

This type of explanation is even more convincing in the case of the third source of CA, namely the role of inadequate communication skills. Even in spite of the threat created by the FL learning process, girls work hard to lower the level of uncertainty, trying to make up for their communication deficits with their diligent studies or laborious preparation for lessons. Aside from that, it may be quite understandable that in spite of their objectively acceptable L2 skills, they may be convinced about their inadequacy, as studies of self-competence beliefs show (Rudasill & Callahan, 2010). Still, the typically female domain of language learning allows communication apprehensive girls to apply better adaptation behaviors, which is not the case in communication apprehensive boys.

Therefore, excessive activation of a communication apprehensive male's nervous system may become a serious threat in the educational context, which does not suit his stereotypical preferences. Over-physiological reac-

tions, when inevitably identified with the L2 learning process, give way to elevated LA. Also, in the case of normal somatic reactions assessed improperly (inappropriate cognitive processing), males may feel threatened. In this case, their avoidance and withdrawal from language study is a likely occurrence. Obviously, male prejudice against language learning, worsened by their more careless attitude to homework or school duties, may lead to greater vulnerability to negative emotions such as LA.

However, the role of inadequate communication skills may not constitute a likely explanation for high levels of LA in communication apprehensive males. The reason is that males have a tendency to overestimate their performance, both in math and language (Chevalier, Gibbons, & Hoskins, 2008). Thus, boys suffering from CA may deprive themselves of chances for a more satisfactory school life due to their plausible prejudice or carelessness.

Generally speaking, CA is a factor that has considerable potential to ruin an individual's chances of building successful social relationships. It is clearly understood that its combination with LA, inducing negative emotions in the FL learning process, may evolve into menacing stringency, affecting one's life to an unimaginable extent. Yet, it seems that in the Polish educational context females without that deficit fare much worse than their male counterparts, while communication apprehensive females experience similar LA levels as their male classmates. One would therefore be justified in concluding that the impact of gender is reduced in the interaction between CA and LA in the context of the Polish secondary grammar school.

Conclusions

This study has attempted to fill a gap in the research devoted to the role of gender and CA in generating LA. As both CA and LA imply fear or anxiety connected with communication, most of the concluding recommendations should center on aspects of communication in the context of the FL class, with a special focus on gender differences.

First of all, the teacher should create a safer classroom atmosphere that to at least a small degree reduces the apprehensive students' stress levels and allows them to encounter more positive experiences. This can be achieved by placing more emphasis on individual work and homework, which will give the apprehensives a chance to succeed by working independently. Apart from that, when in the classroom, instead of being forced to communicate in open pairs, apprehensive students should be encouraged to rehearse privately, with no threat of public speaking. This will allow them to work on their FL skills free from external pressures. As skills training is very effective in combating the

negative effects of CA and LA, it will be necessary for apprehensives to prepare and memorize a repertoire of ready-made conversational gambits. Students' confidence in communication can also be improved by introducing short relaxation techniques, such as muscle relaxation or meditation, which can be practiced during every lesson. Last but not least, the approach to evaluation should also be altered, with the teacher praising students more for their efforts than aptitude or skill. Such interventions may reduce negative behaviors on the part of apprehensive students, such as withdrawal, avoidance and disruption – all clear symptoms of anxiety.

The issue of gender in the process of FL learning should also be more openly addressed by reducing female inferiority. It seems that the teacher's attention should be distributed equally between the genders. Girls, even though in most cases invisible, need to receive more praise and attention and be allowed to openly voice their opinions, while boys should be supervised and motivated. However, in the case of communication apprehensives the teacher's attempts should be more reserved and noninvasive regarding the vulnerable student's privacy.

This study is not free from limitations that must be addressed. First of all, one must bear in mind the fact that it was carried out in the Polish educational context, and an individual's communication is deeply entrenched in his or her culture, due to the fact that "the amount of talking in which a person engages would be dependent, at least in part, on that person's cultural orientation" (Barraclough, Christophel, & McCroskey, 1988, p. 187). Hence, the individual's communicative behavior is rooted in the culture in which one is raised. From this point of view, the research context is very specific, so its results may not be directly generalized to other cultures. Apart from that, the cross-sectional study design does not allow for drawing complex cause-and-effect inferences, apart from the impact of gender. Instead, longitudinal studies or panel designs applied in culture-specific contexts may shed more light on the gender-dependent interplay of CA and LA. Another drawback of the study can be attributed to the fact that the unclear role of language experience, which has a powerful explanatory role in analyzing LA levels longitudinally, has not been catered for. It would also be interesting to establish if the length of one's experience with the FL might be a reliable correlate of their LA, when stimulated by CA. Finally then, it seems very interesting to shed more light on the aspect of gender analyzed from the perspective of feminine, masculine and androgynous dimensions.

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